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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/505,989	02/17/2000	Yoshiyuki Suetsugu	49677-059	7678

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EXAMINER

ZARROLI, MICHAEL C

ART UNIT	PAPER NUMBER
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2839

DATE MAILED: 06/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/505,989

Applicant(s)

SUETSUGU ET AL.

Examiner

Michael C. Zarroli

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 15-17 is/are rejected.
- 7) ☒ Claim(s) 13 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
2. The disclosure is objected to because of the following informalities: On page 5 line 26, "begin" should be changed to --being--.

Appropriate correction is required.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the ribbon or stack "**twisted lengthwise** in one direction" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. Figures 2, 5A, 5B and, 7 should be designated by a legend such as --Prior Art--. These figures are discussed in the Description of Related Art section of the specification. See MPEP § 608.02(g). A proposed drawing correction or corrected

drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance. **The examiner recommends that the applicant make figures that clearly delineate the differences between the claimed invention and prior art.**

5. The drawings are objected to under 37 CFR 1.83(a) because they fail to show "the pitch length of the grooved spacer begin (sic) twice as large as the predetermined pitch length" as described in the specification on page 5 last paragraph. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

6. Claim 3 is objected to because of the following informalities: In line 18, "is one-groove" should be changed to --is a one-groove--. Appropriate correction is required.

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7. Claim 12 is objected to because of the following informalities: In the last line an --a-- should come before “predetermined pitch length.” Appropriate correction is required.
8. Claim 13 is objected to because of the following informalities: In line 9 “begin” should be --being--. Appropriate correction is required.
9. Claim 14 is objected to because of the following informalities: In line 13 --an integer-- should replace “integer.” Appropriate correction is required.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

11. Claims 3, 5-9 and, 15-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites that the spacer is “linear lengthwise.” Yet, the claim from which it depends recites that the spacer “is twisted...spirally.” How can both situations be the case? The examiner will interpret claim 3 to mean that the spacer is twisted spirally.

Claim 17 recites the limitation "one-groove **spacers**" in lines 4-5. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country, in public use, or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1, 4 and, 10-11 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wagman et al.

Wagman discloses an optical cable (10) with spirally provided grooves (27).

These grooves are substantially square in cross section (fig. 4) and, they hold a fiber ribbon stack (13). Wagman disclose that the inner width and height of the groove sidewalls are set greater than a width of the fiber ribbon (fig.

2). Finally, Wagman discloses that the optical fiber ribbon is twisted lengthwise in one direction (figures 1 or 4).

Regarding claims 4 and 10 Wagman discloses that a central member (12) is a grooved spacer with at least one groove on its surface and each groove

being spiral lengthwise (fig. 1). This groove is a spiral groove, spirally formed in one direction on the surface of the grooved spacer (fig. 1).

Regarding claim 11 Wagman discloses that a twisting pitch length of the fiber ribbon is equal to a spiral pitch length of the groove (fig. 1).

Claim Rejections - 35 USC § 103

14. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 2 and, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagman et al as applied to claim 1 above, and further in view of Eoll.

Wagman does not disclose a central member and spacers with SZ-shaped grooves twisted around this central member so as to reverse their direction at a predetermined length.

Eoll discloses a central member (48) and spacers with SZ-shaped (col. 7 line 52) grooves (41) twisted around this central member (fig. 4).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify Wagman to have the grooves wind around the central member as taught by Eoll. The motivation/suggestion for doing so would have been provide less stress on the fiber ribbons.

Allowable Subject Matter

17. Claims 13-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

18. Claims 3, 5-9 and, 15-17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

19. The following is a statement of reasons for the indication of allowable subject matter: In combination with claims 1 and 2 the **one-groove spacer**. The combination of claim 13 specifically the pitch length of the grooved spacer being twice as large as the predetermined pitch length.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The last four patents listed on the PTO-892 have many features common with the claimed invention and also some inventions that are common.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Zarroli whose telephone number is 703-305-0608. The examiner can normally be reached on 7:30 to 3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Feild can be reached on (703) 308-2710. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



Michael C. Zarroli
Examiner
Art Unit 2839

MCZ

June 11, 2003